

Translation of Published Unexamined Japanese
Utility Model Application No.2-113476

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* PUJUMA: Published Unexamined Japanese Utility Model
Application

[What is claimed is]

1. A liquid crystal panel driving apparatus for displaying an image by employing a liquid crystal panel of accumulation response, said liquid crystal panel driving apparatus comprising:

an image memory for storing digital image data of one frame;

a comparison circuit for comparing the level of said digital image data of one frame with the level of digital

image data of another frame following said one frame output from said image memory, so as to output a graduation change signal;

means for selecting a normal-level liquid crystal driving voltage on the basis of said graduation change signal output from said comparison circuit when determining that said digital image data have the same level, by which to drive an electrode of the liquid crystal panel so as to display, said means selecting a liquid crystal driving voltage higher than said normal-level liquid driving voltage on the basis of said graduation change signal output from said comparison circuit when it is determined that the levels of said digital image data differ from each other, by which to drive the electrode so as to display.

2. The liquid crystal panel driving apparatus according to claim 1, wherein said comparison circuit compares the level of said image data of one frame with the level of image data of another frame following said one frame output from said image memory, so as to output a graduation change signal, said comparison circuit comprises means for outputting said image data of one frame when said digital image data of one frame and image data of another frame ahead of said one frame are the same, for outputting image data of maximum level when said image data of one frame is higher in level than image data of another frame ahead of said one frame, and for outputting

image data of minimum level when said image data of one frame is lower in level than image data of another frame ahead of said one frame, said liquid crystal panel driving apparatus drives said liquid crystal panel on the basis of image data output from said image data output means.

[Brief Description of the Drawings]

Figs. 1 to 4 show an embodiment of the present invention. Fig. 1 is a block diagram of a circuit, Fig. 2 is a detailed block diagram of a segment driving circuit, Fig. 3 is a block diagram of an analog multiplexer of one stage shown in Fig. 2, Fig. 4 is a timing-chart explaining an operation, Fig. 5 is a block diagram of a conventional liquid crystal camera, and Fig. 6 is a set of diagrams showing a relationship between a resultant waveform of a voltage by which a liquid crystal is driven and a light transmission ratio of the liquid crystal.

2... .. a tuner, 3... .. a television linear circuit, 4... .. an A/D converter circuit, 5... .. a synchronous control circuit, 6, 6'... .. a segment driving circuit, 7... .. a common electrode driving circuit, 8... .. a liquid crystal panel, 11... .. an image memory, 12... .. a comparison circuit, 21... .. a data latch clock generator circuit, 22... .. a data latch circuit, 23... .. a signal generator circuit, 24... .. an analog multiplexer, 25... .. a blanking control circuit, 31-36... .. analog switches.